

Designing on the move

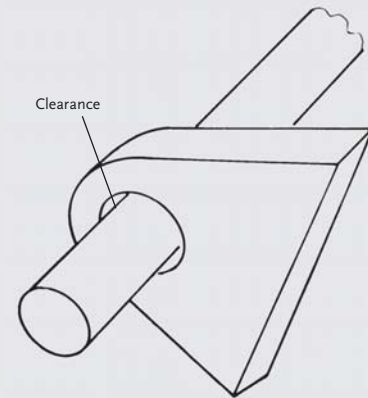
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Designing for moving parts

Moving parts such as drop handles, hinges, shackles and shafts must incorporate minimum radial clearances as detailed below:

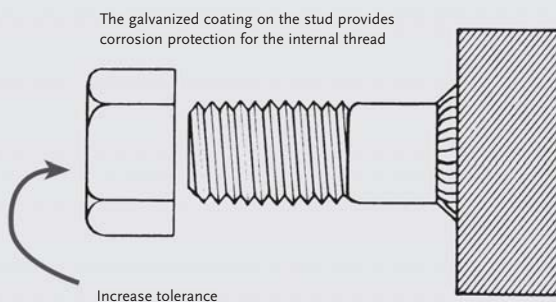
CLEARANCE FOR MOVING PARTS

<i>Size of Spindle Shaft</i>	<i>Minimum radial clearance</i>
Up to 10mm diameter	1.0mm
10 to 30mm diameter	2.0mm
Over 30mm diameter	2.5mm



Galvanized threads

Internal threads and nuts must be tapped oversize after galvanizing to accommodate the thickness of the galvanized coating on the stud or bolt. The galvanized coating on the stud provides corrosion protection for the internal thread.



For economy, nuts are sometimes galvanized as blanks and threads are tapped after galvanizing. Uncoated internal threads are acceptable since the zinc coating on the external thread provides full corrosion protection.

Bolted assemblies should be presented for galvanizing in the disassembled condition. Nuts and bolts or studs for galvanizing should also be supplied disassembled. When internal pre-tapped threads included in components are required not to be galvanized they may be plugged temporarily by means of bolts or studs screwed fully in.

AUSTRALIAN STANDARD 1214 SPECIFIES THE FOLLOWING OVERSIZE TAPPING ALLOWANCES:

NOMINAL DIAMETER OF INTERNAL THREADS	ALLOWANCE (mm)
Up to M22	0.40mm
M24	0.45mm
M27	0.50mm
M30	0.55mm
M36	0.60mm
M36-48	0.80mm
M48-64	1.0mm

Talk to your Perry Metal Protection representative for specific advice and recommendations.

For safety reasons, high strength bolts must not be welded to galvanized structures for use as high strength studs. Galvanized bolts and the bolting of galvanized structures should be discussed in detail with Perry Metal Protection.



TALKING TECHNICAL

Design, specification and inspection of galvanized products

To ensure consistently good galvanized steel products, it is essential that the basic requirements outlined in these guides are incorporated at the design and fabrication stages of production.

These technical guides are designed to be introductory only. All design features should be discussed with a member of our advisory team. Close liaison between the design engineer, materials engineer, specifier, fabricator and galvanizer will ensure the highest galvanizing standards. Perry Metal Protection also distributes a free wallchart and a summary booklet.



Perry Metal Protection is a member of the Galvanizing Association of New Zealand, Galvanizers Association of Australia and is ISO9001 certified.

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For advice on service, quotations and technical knowledge on hot dip galvanizing, contact your local Perry Metal Protection site:

Hamilton 14 Manchester Place, Te Rapa 07 850 0120

Auckland 14 Timothy Place, Rosebank 09 820 8471

Tauranga 119 Oropi Rd, Greerton 07 541 1344

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Christchurch 5 Chinook Place, Hornby 03 349 0290

Alternatively, visit our website www.perrymetalprotection.co.nz or email enquiry@perry.co.nz